

# Python: module ncml.cs

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NcML + coordinate extensions support. See <http://www.unidata.ucar.edu/schemas/>

### **Modules**

[ncml.ncml](#)

[string](#)

### **Classes**

[ncml.ncml.NCMLNode](#)  
[CoordinateSystemNode](#)  
[CoordinateTransformNode](#)  
[ncml.ncml.NetcdfNode\(ncml.ncml.NCMLNode\)](#)  
[NetcdfNode](#)  
[ncml.ncml.VariableNode\(ncml.ncml.NCMLNode\)](#)  
[CoordinateAxisBoundaryNode](#)  
[CoordinateAxisNode](#)  
[VariableNode](#)

class ***CoordinateAxisBoundaryNode***([ncml.ncml.VariableNode](#))

Method resolution order:

[CoordinateAxisBoundaryNode](#)  
[ncml.ncml.VariableNode](#)  
[ncml.ncml.NCMLNode](#)

Methods defined here:

***\_\_init\_\_***(self, name, datatype, shape=None)

Methods inherited from [ncml.ncml.VariableNode](#):

***setAttribute***(self, att)

Add an attribute. att is an [AttributeNode](#)

***setValues***(self, values)

Set values, a [ValueNode](#).

***toCDML***(self, ncnod, forcedata=0)

Translate to a CDML tree. Returns a [cdms.cdmsNode.VariableNode](#)

***write***(self, fd)

---

Methods inherited from [ncml.ncml.NCMLNode](#):

***endwrite***(self, fd, content=0)

***startwrite***(self, fd)

class ***CoordinateAxisNode***([ncml.ncml.VariableNode](#))

Method resolution order:

[CoordinateAxisNode](#)  
[ncml.ncml.VariableNode](#)  
[ncml.ncml.NCMLNode](#)

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Methods defined here:

***\_\_init\_\_***(self, name, datatype, units, shape=None, axisType=None, positive=None, boundaryRef=None)

***toCDML***(self, ncnode, forcedata=0)

Translate to a CDML tree. Returns a `cdms.cdmsNode.AxisNode`.  
If forcedata=1, values are set to [0., 1., ...] even if not explicitly provided.

***write***(self, fd)

---

Methods inherited from [ncml.ncml.VariableNode](#):

***setAttribute***(self, att)

Add an attribute. att is an `AttributeNode`

***setValues***(self, values)

Set values, a `ValueNode`.

---

Methods inherited from [ncml.ncml.NCMLNode](#):

***endwrite***(self, fd, content=0)

***startwrite***(self, fd)

class ***CoordinateSystemNode***([ncml.ncml.NCMLNode](#))

Methods defined here:

***\_\_init\_\_***(self, name)

***addCoordinateAxis***(self, a)

***addCoordinateTransform***(self, t)

***write***(self, fd)

---

Methods inherited from [ncml.ncml.NCMLNode](#):

***endwrite***(self, fd, content=0)

***startwrite***(self, fd)

class ***CoordinateTransformNode***([ncml.ncml.NCMLNode](#))

Methods defined here:

***\_\_init\_\_***(self, name, authority, transformType=None)

***setAttribute***(self, p)

***write***(self, fd)

---

Methods inherited from [ncml.ncml.NCMLNode](#):

***endwrite***(self, fd, content=0)

***startwrite***(self, fd)

class ***NetcdfNode***([ncml.ncml.NetcdfNode](#))

Method resolution order:

[NetcdfNode](#)

[ncml.ncml.NetcdfNode](#)

[ncml.ncml.NCMLNode](#)

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Methods defined here:

***\_\_init\_\_***(self, id=None, uri=None)

***setCoordinateAxis***(self, c)

Add a coordinate axis node.

***setCoordinateSystem***(self, c)

Add a coordinate system node.

***setCoordinateTransform***(self, c)

Add a coordinate transform.

***toCDML***(self, forcedata=0)

Translate to a CDML tree. Returns a `cdms.cdmsNode.DatasetNode`.

***write***(self, fd)

---

Methods inherited from [ncml.ncml.NetcdfNode](#):

***setAttribute***(self, a)  
Add an attribute node a.

***setDimension***(self, d)  
Add a dimension node d.

***setVariable***(self, v)  
Add a variable node v.

---

Methods inherited from [ncml.ncml.NCMLNode](#):

***endwrite***(self, fd, content=0)

***startwrite***(self, fd)

class ***VariableNode***([ncml.ncml.VariableNode](#))

Method resolution order:

[VariableNode](#)  
[ncml.ncml.VariableNode](#)  
[ncml.ncml.NCMLNode](#)

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Methods defined here:

***\_\_init\_\_***(self, name, datatype, shape=None, coordinateSystems=None)

***toCDML***(self, ncnode)  
Translate to a CDML tree. Returns a cdms.cdmsNode.[VariableNode](#).

***write***(self, fd)

---

Methods inherited from [ncml.ncml.VariableNode](#):

***setAttribute***(self, att)  
Add an attribute. att is an [AttributeNode](#)

***setValues***(self, values)  
Set values, a [ValueNode](#).

---

Methods inherited from [ncml.ncml.NCMLNode](#):

***endwrite***(self, fd, content=0)

***startwrite***(self, fd)

## Functions



***scan(path)***

Scan a Cdunif file, return a tree of NCML objects, in the form of a NetcdfNode.

## ***Data***

***CdString = 'String'***

***cdToCsAxisType = {'t': 'Time', 'x': 'Lon', 'y': 'Lat', 'z': 'Height'}***

***schemaLocation = 'http://www.ucar.edu/schemas/netcdf-cs.xsd'***